Appl. No. 09/974,435 Amdt. dated 09/23/04 Reply to Office action of 05/06/2004

## **Amendment of Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1. (currently amended) An optical wireless hub device comprising:

a plurality of optical receivers, each optical receiver configured to receive an optical wireless signal which share a common property selected from the group consisting of optical wavelength, polarization, multiplexing and sub- carrier modulation wherein different ones of the optical receivers are aligned with adjacent receivers to have different fields of view such that each incoming optical wireless signal cannot be viewed at the same time by two receivers having overlapping fields of view;

processor circuitry coupled to the plurality of optical receivers, the processor circuitry receiving electrical signals derived from the optical wireless signal.

- 2. (canceled)
- 3. (canceled)
- 4. (canceled)
- 5. (original) The device of claim 1 wherein each optical receiver includes a filter so that the receiver receives optical signals within a limited range of wavelengths.
- 6. (canceled)
- 7. (original) The device of claim 1 wherein some of the optical receivers include a filter that only passes a first polarization of light and others of the optical receivers include a filter that only passes a second polarization of light, the first polarization being substantially orthogonal to the second polarization.
- 8. (previously presented) The device of claim 1 wherein different ones of the optical receivers are enabled and disabled over time such that each optical receiver can

 receive no more than one of the unique optical wireless signals sharing the common property.

- 9. (canceled)
- 10. (previously presented) The device of claim 25 wherein the encoding includes a modulated sub-carrier signal and wherein each of the optical receivers is configured to receive source information from the modulated sub-carrier signal.
- 11. (canceled)
- 12. (original) The device of claim 1 wherein the processor circuitry comprises a digital signal processor.
- 13. (original) The device of claim 1 wherein the process circuitry comprises a microcontroller.
- 14. (original) The device of claim 1 wherein the interface unit comprises a physical layer device.
- 15. (currently amended) An optical wireless communication device comprising:

a first optical wireless receiver having a photodetector with a first field of view for receiving a first optical wireless signal from a first remote source having a first property selected from the group consisting of optical wavelength, polarization, multiplexing and sub-carrier modulation;

a second optical wireless receiver having a photodetector with a second field of view, the second field of view not overlapping the first field of view for receiving a second optical wireless signal from a second remote source having the first property; and

processing circuitry coupled to the first and to the second optical wireless receivers, the processing circuitry receiving first data from the first remote source and second data from the second remote source, the first data being received through the

Appl. No. 09/974,435 'Amdt. dated 09/23/04 Reply to Office action of 05/06/2004

· first optical wireless receiver and the second data being received through the second optical receiver.

- 16. (original) The device of claim 15 wherein the first optical wireless receiver further includes a polarization filter.
- 17. (original) The device of claim 15 wherein the first optical wireless receiver further includes a wavelength filter.
- 18. (original) The device of claim 15 wherein the optical wireless communication device further comprises a transmitter, the transmitter comprising:

a source of light having a beam of light;

a controllable beam steering device; and

an actuator to permit steering said light beam, the beam steering device being controllable by predetermined control signals.

- 19. (original) The device of claim 15 wherein the optical wireless communication device further comprises a plurality of additional optical receivers, at least some of the additional optical receivers having a photodetector with said first field of view.
- 20. (currently amended) A method of communicating with a optical wireless signal, the method comprising:

receiving a first optical wireless signal having a first property <u>selected from the</u> group consisting of optical wavelength, polarization, multiplexing and sub-carrier modulation from a first source at a first angle;

receiving a second optical wireless signal having the first property from a second source at a second [amgle] <u>angle</u> different from the first angle; and

distinguishing between the first optical wireless signal and the second optical wireless signal.

- · 21. (canceled)
  - 22. (original) The method of claim 21 wherein the first angle is at least five degrees different than the second angle.
  - 23. (original) The method of claim 20 wherein the first optical wireless signal centered around a first wavelength and the second optical wireless signal is centered around a second wavelength.
  - 24. (original) The method of claim 20 wherein the first optical wireless signal has a first polarization and the second optical wireless signal has a second polarization, the second polarization being substantially orthogonal to the first polarization.
  - 25. (cancelled)
  - 26. (cancelled)
  - 27. (cancelled)
  - 28. (cancelled)